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MOLASSES FOR HORSES AND MULES

Molasses has been used in a very limited way as part of the horse's ration in many sections of the United States. Usually it has been fed as a conditioner and in small quantities; in most instances as a component part of a mixed feed.

At the present time molasses is available at a price which justifies its consideration as one of the more important parts in the ration of the farm horse in the drought area. Not only is the price ratio favorable to molasses, but the prospects of a shortage of corn and oats, the two grains which normally make up most of the concentrated part of the horse's ration, together with availability of a relatively large amount of molasses, makes the use of this product seem to be all the more important. Likewise, horses as a class throughout the drought area are thinner than usual and in need of a conditioner.

For many years sugar cane has been grown on an extensive basis in the southern part of Louisiana. In this area mules are depended upon almost entirely for farm and plantation power. With blackstrap molasses available in this section in large quantities and naturally at a relatively low price compared with the grains which not infrequently must be shipped in from the corn belt, it is but natural that the feeding of molasses to mules would be a fairly well established practice in the area.

The following report may be of interest to farmers in the drought area who are considering the use of molasses in the rations of work horses.

EXPERIMENTAL RESULTS AT LOUISIANA EXPERIMENT STATION

Dr. M. G. Snell of the Department of Animal Husbandry and Supt. W. G. Taggart of the Sugar Station have for a number of years conducted trials in which they sought to ascertain the extent to which blackstrap molasses could be substituted for ground snapped corn in the rations of work mules. These tests were conducted with work stock on the experimental sugar farm, one mule in each team being fed without molasses and the other with it. The basic ration in most trials consisted of ground snapped corn and hay. From 6 to 8 span of mules were used each year and each test continued throughout a period of approximately 8 months.

The amounts of molasses fed included 3, 6, and 9 lbs., and in one trial a full feed without other concentrate. Results showed rather definitely that up to 9 lbs. daily could be fed without apparent detriment to the animal. They concluded, however, that 6 to 7 lbs. per animal daily is the most satisfactory allowance. This amount spread over ground snapped corn or cut hay has given splendid results.



## MOLASSES OBSERVATIONS BY DR. SNELL

1. Don't dilute molasses if can avoid it. Water causes spoilage of mixed feeds in warm weather.
2. If possible, feed molasses mixed with cut roughage, ground snapped corn, or whole roughage.
3. Six lbs. of molasses per day constitutes a very safe allowance. Take a few days to work up to this amount, thus acclimating the animal to it.
4. Don't grind or mix ahead more than for very few days in hot weather. The ideal plan would be to mix as fed, and the closer one can keep to this the better.
5. In making up a work horse's ration, remember that molasses consists almost entirely of carbohydrate material and that a protein supplement should be added in case the roughage used is likewise low in protein.
6. While no direct experiments have been conducted with horses, observation throughout the Sugar Bowl area of Louisiana indicate that horses respond to molasses feeding practically the same as do mules. On most plantations there are several saddle horses, and these are usually fed in the lot with the mules.
7. While the original method of feeding molasses to mules in Louisiana consisted of self-feeding in a trough, the practice of mixing with grain or roughage has become standard and is to be recommended over this.
8. In experimental work at the Louisiana Station, a ration of 9 lbs. molasses and 4 1/2 lbs. ground snapped corn gave equally good results to one consisting of 13 1/2 lbs. of ground snapped corn. However, everything considered, it would be better to limit the molasses to 6 or possibly 7 lbs.

## OBSERVATIONS AT SUGAR PLANTATIONS

Observations at a number of plantations are offered below:

1. Cinclaire Sugar Company, Cinclaire, Louisiana. This firm uses a total of 400 mules at the 6 plantations which it operates. The usual ration fed consists of 20 lbs. daily of a mixture containing 70 % ground snapped corn and 30% molasses. In addition, grass hay is available in racks. On several of the plantations, pasture is used during part of the season, and where this is the case the amount of concentrated mixture is reduced slightly. In the absence of ground snapped corn, hay is cut and cracked corn and ground oats used to make up the body to which to add molasses.





2. Merle Sugar House-Prudential Plantation, Bayougalua, Louisiana. This concern operates with 71 mules. They are one of the few plantations which still feeds molasses in a trough. At this time the mules are consuming approximately  $\frac{3}{4}$  of a barrel of molasses daily. This would be slightly over 6 lbs. per head. A mixture of cracked shelled corn and crushed oats equal parts is fed noon and night, 500 lbs. in each instance.

Thus the daily ration per mule is 14 lbs. of the cracked grain and oats mixture and 6 lbs. of molasses. The mules have access to hay in racks.

3. South Down Plantation, Houma, Louisiana. This plantation with a total of 600 mules feeds a mixed ration containing 6 lbs. of molasses per animal. Experiences at this plantation have caused the operators to be very insistent that molasses be fed as part of a mixed ration. This concern has 110 head of dairy cows and they likewise receive molasses as part of their rations.
4. Standard Division Realty Operators Company, Thibodaux, Louisiana. One hundred eighty-two mules at 5 plantations. These mules work on an average 150 days per year. They work especially hard during the grinding season, which includes the months of October, November, and December. The usual ration fed on this plantation per mule is a mixture containing

15 lbs. ground snapped corn  
8 lbs. ground or chopped soybean hay  
7 lbs. molasses.

This year on account of the wredking of the corn crop by a June storm, the ration has had to be changed and the following is being used:

7 lbs. dried brewers grains (or rice bran)  
7 lbs. cracked shelled corn  
2 lbs. cotton seed meal  
7 lbs. molasses  
7 lbs. soybean hay

5. County Agricultural Agent, Lawrence J. Peltier of La Fourche Parish, Thibodaux, Louisiana, reports a keen interest on the part of small farmers and truckers in the use of molasses in rations for their work stock. Many of these men are this year getting molasses in drums at the sugar mills. Prices prevailing are

Molasses	\$12.00-13.00 per ton
Corn	35.00 per ton
Cotton Seed Meal	42.00 per ton
Rice Bran	32.00 per ton
Rice Polish	36.00 per ton





Mr. Kilpatrick and Dr. Dalrymple, in their first experiment, fed whole ear corn in a box, uncut hay in a rack, and molasses ad lib in a trough. Mr. Kilpatrick states that after following this practice for a number of years, they reached the conclusion that molasses fed as such over a long period of time was hard on the mule's teeth, and upon Dr. Dalrymple's recommendation they switched to a standard plan of cutting and mixing the entire ration.

Mr. Kilpatrick's records on the daily cost of feed per 1200 lb. mule show that, for instance, in 1907 on a drove including 250 head of mules, the average feed cost per day was 19.3¢. In 1908 it advanced to 22.7¢ and in 1909 dropped back to 15.26¢. Incidentally, in 1934 it was 20¢. Naturally, the cost per day is dependent upon the market price of feed.

#### CONCLUSION

It would seem that farmers in the drought area could well consider using some molasses in the rations for their work horses during the spring of 1935. Six pounds (2 quarts) per day fed spread over chopped grain or cut roughage should make a satisfactory ration.

